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EXAMINER	
CHU, WUTCHUNG	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/782,754	RABIPOUR ET AL.	
	Examiner	Art Unit	
	WUTCHUNG CHU	2468	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 May 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20,22 and 23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20,22 and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This communication is in response to application's amendment filed on 5/13/2010. Claims 1-20 and 22-23 are pending, and claim 21 is cancelled.

Specification

2. The disclosure is objected to because of the following informalities: the terms "active" and "passive" use throughout Detailed Description is objected, which seems to refer back to the terms, "positive" and "negative" use in Summary and in the Claims. If this is true, it is suggested to change "active" to ---positive---, and "passive" to ---negative---. Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 17 is rejected under 35 U.S.C. 101 because the claimed invention is direction to non-statutory subject matter.

Claim 17 is directed to a signal per se. The term computer readable media as define in the specification "the transmission medium may be a medium implemented using wireless techniques (e.g., microwave, infrared or other transmission schemes)." Therefore the media includes a signal which is non-statutory.

Furthermore, Claim 17 is directed to a process-readable memory comprising instructions which given its broadest reasonable interpretation would typically covers forms of non-transitory tangible media and transitory propagation signals *per se* in view

of the ordinary and customary meaning of computer readable media (see paragraph 00259). When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim must be rejected under 35 U.S.C. 101 as covering non-statutory subject matter. In an effort to assist patent community in overcoming the rejection under 35 U.S.C. 101, the USPTO suggest the following approach. A claim drawn to such a computer readable medium (or the like) that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. 101 by adding the limitation "non-transitory" to the claim. Such an amendment would typically not raise the issue of new matter, even when the specification is silent because the broadest reasonable interpretation relies on the ordinary and customary meaning that includes signals *per se*.

Claim Rejections - 35 USC § 103

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer et al., hereinafter Shaffer, (US6324409) in view of Harada (US7240000).

Regarding claims 1, 16, and 17, Shaffer disclose a system and method for optimizing telecommunication signal quality **(see Shaffer col. 2 lines 18 to col. 3 lines 15 and Program instruction col. 4 line 18)** comprising:

- a first interface for exchanging data with a first neighboring entity **(see Shaffer figure 2 box 202 gateway and col. 6 line 8 which interfaces with box 200 TOL client)**;
- a second interface for exchanging data with a second neighboring entity **(see Shaffer figure 2 box 202 gateway and col. 6 lines 8-10 second interface of gateway connect to box 204 PBX)**;
- a memory for storing codec information regarding said communication apparatus **(see Shaffer col. 8 lines 64 to col. 9 lines 10)**;
- a control entity operative to detect a first message from the first neighboring entity via the first interface, the first message being indicative of codec information regarding an originating entity **(see Shaffer figure 4 box 400 and 404 signaling message then collects at least one capability (signal coding and compression) of the receiver)**;
- responsive to detection of the first message, the control entity being operative to perform an assessment of compatibility between the codec information regarding the originating entity and the codec information regarding said communication

apparatus **(see Shaffer figure 4 boxes 406 and 408 determining an end-to-end coding scheme)**;

- responsive to the assessment **(see Shaffer col. 7 lines 1-14 the signaling message then collects at least one telecommunication signal coding or compression capability of at least one intermediary station and figure 4 step 402)**, and self-identify the communication apparatus as a candidate **(see Shaffer col. 2 lines 29-40 each entity or device capable of converting voice coding between the sender and the receiver identifies its capabilities to the signaling message and col. 7 lines 12 when the signaling capabilities of a station, the station may list its capabilities onto the signaling message);**

Shaffer disclose all the subject matter of the claimed invention with the exception of:

- compatibility being positive, the control entity being operative to
- for terminally supporting a subsequent codec-bypass negotiation with the originating entity;
- compatibility being negative, the control entity being operative to
- for non-terminally supporting a subsequent codec-bypass negotiation with the originating entity.

Harada from the same or similar fields of endeavor teaches the use of:

- Determining if same coding type and indication of whether it is the same type or not for coding-bypass communication or tandem communication **(see Harada figure 7 boxes 11-13 and col. 7 lines 22-44),** and it would have been obvious to one of

ordinary skill in the art to indicate that same coding type as being positive and different type as being negative.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the determination if using the same coding **(see Harada figure 7 boxes 11-13 and col. 7 lines 31-44)** and it would have been obvious to one of ordinary skill in the art to indicate that same coding type as being positive and different type as being negative as taught by Harada and in the system and method for optimizing telecommunication signal quality of Shaffer in order to reduce the load of IP network and increase the signal quality of speech **(see Harada col. 4 lines 13-34).**

Regarding claim 2, Shaffer and Harada teach further comprising: responsive to the assessment **(see Shaffer col. 7 lines 1-14 the signaling message then collects at least one telecommunication signal coding or compression capability of at least one intermediary station and figure 4 step 402)** of compatibility being positive **(see Harada figure 7 boxes 11-13 and col. 7 lines 31-44 and it would have been obvious to one of ordinary skill in the art to indicate that same coding type as being positive and different type as being negative)**, the control entity being further operative to release a second message towards the first neighboring entity via the first interface **(see Shaffer figure 4 box 410 send another message instructing intermediary stations to follow end-to-end coding scheme for the call)**, the second message being indicative of the communication apparatus being self-identified as a candidate **(see Shaffer col. 2 lines 29-40 each entity or device capable of converting voice coding between the sender and the receiver identifies**

its capabilities to the signaling message and col. 7 lines 12 when the signaling capabilities of a station, the station may list its capabilities onto the signaling message) for terminally supporting a subsequent codec-bypass negotiation with the originating entity **(see Harada figure 7 boxes 11-13 and col. 7 lines 31-44)**. The motivation to do so is to reduce the load of IP network and increase the signal quality of speech **(see Harada col. 4 lines 13-34).**

Regarding claim 3, Shaffer disclose all the subject matter of the claimed invention with the exception of:

- responsive to absence of any message from the second entity indicative of the second entity being self-identified as a candidate for terminally supporting a subsequent codec-bypass negotiation with the originating entity, effecting said subsequent codec-bypass negotiation with the first entity.

Harada from the same or similar fields of endeavor teaches the use of:

- indication of whether it is the same type or not for coding-bypass communication or tandem communication **(see Harada figure 7 boxes 11-13 and col. 7 lines 31-44)** and it would have been obvious to one of ordinary skill in the art at the time of the invention to use the absence of any message as indicative of terminally supporting codec-bypass.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the indication of whether the same type of coding in the codec-bypass operation **(see Harada figure 7 boxes 11-13 and col. 7 lines 31-44)** as taught by Harada in the system and method for optimizing telecommunication signal quality of

Shaffer in order to reduce the load of IP network and increase the signal quality of speech **(see Harada col. 4 lines 13-34).**

Regarding claim 4, Shaffer and Harada teach further comprising: the control entity being operative to forward the first message to the second remote entity via the second interface **(see Shaffer figure 5 boxes 504 and 506 and col. 7 lines 50-65)**.

Regarding claim 5, Shaffer and Harada teach the first and second interfaces are packet interfaces **(see Shaffer col. 8 lines 56-63)**.

Regarding claim 6, Shaffer and Harada teach the first interface is a packet interface **(see Shaffer col. 8 line 61)** and the second interface is a circuit-switched interface **(see Shaffer col. 6 lines2-26 and col. 8 line 24)**.

Regarding claim 7, Shaffer and Harada teach the first and second interfaces are circuit-switched interfaces **(see Shaffer col. 8 line 27).**

Regarding claim 8, Shaffer and Harada teach the - detect a second message received from the second neighboring entity, the second message being indicative of the second neighboring entity apparatus being self-identified as a candidate for **(see Shaffer col. 2 lines 29-40 each entity or device capable of converting voice coding between the sender and the receiver identifies its capabilities to the signaling message and col. 7 lines 12 when the signaling capabilities of a station, the station may list its capabilities onto the signaling message)** terminally supporting a subsequent codec-bypass negotiation with the originating entity **(see Harada figure 7 boxes 11-13 and col. 7 lines 22-44 Determining if same coding type and indication of whether it is the same type or not for coding-bypass communication or tandem**

communication and it would have been obvious to one of ordinary skill in the art to indicate that same coding type as being positive and different type as being negative);

responsive to detection of the second message, self-identify the communication apparatus as a candidate **(see Shaffer col. 2 lines 29-40 each entity or device capable of converting voice coding between the sender and the receiver identifies its capabilities to the signaling message and col. 7 lines 12 when the signaling capabilities of a station, the station may list its capabilities onto the signaling message)** for non-terminally supporting a subsequent codec-bypass negotiation with the originating entity **(see Harada figure 7 boxes 11-13 and col. 7 lines 22-44 Determining if same coding type and indication of whether it is the same type or not for coding-bypass communication or tandem communication and it would have been obvious to one of ordinary skill in the art to indicate that same coding type as being positive and different type as being negative)**. The motivation to do so is to reduce the load of IP network and increase the signal quality of speech **(see Harada col. 4 lines 13-34).**

Regarding claim 9, Shaffer and Harada teach the further comprising:

the control entity being operative to forward the second message to the first remote entity via the first interface **(see Shaffer figure 5A box 510 Gateway y sends a second signaling message to gateway X to inform gateway x of client B's and intermediate stations' capabilities and col. 7 lines 66 to col. 8 lines 16)**.

Regarding claim 10, Shaffer and Harada teach the further comprising:

the control entity being further operative to monitor messages exchanged via the first and second interfaces that are indicative of negotiation **(see Shaffer col. 8 lines 64 to col. 9 lines 27 and col. 4 lines 5-11)** of a codec-bypass connection between the originating entity and an entity different from the originating entity **(see Harada figure 7 boxes 11-13 and col. 7 lines 31-44).** The motivation to do so is to reduce the load of IP network and increase the signal quality of speech **(see Harada col. 4 lines 13-34).**

Regarding claim 11, Shaffer and Harada teach the control entity is further operative to:

detect success or failure of said first negotiation; and responsive to failure of said first negotiation **(see Shaffer figure 6B box 654 is there a result with no transcoding and boxes 656 and 658 determining if there is a codec-bypass/transcoding-free operation and figure 5A box 513 send a third signaling message to inform all stations of coding scheme)**, and if the communication apparatus is self-identified as a candidate for **(see Shaffer col. 2 lines 29-40 each entity or device capable of converting voice coding between the sender and the receiver identifies its capabilities to the signaling message and col. 7 lines 12 when the signaling capabilities of a station, the station may list its capabilities onto the signaling message)** terminally supporting a subsequent codec-bypass negotiation with the originating entity, negotiate with the originating entity a codec-bypass connection between the communication apparatus and the originating entity **(see Harada figure 7 boxes 11-13 and col. 7 lines 22-44 Determining if same coding type and indication**

of whether it is the same type or not for coding-bypass communication or tandem communication and it would have been obvious to one of ordinary skill in the art to indicate that same coding type as being positive and different type as being negative). The motivation to do so is to reduce the load of IP network and increase the signal quality of speech **(see Harada col. 4 lines 13-34).**

Regarding claim 12, Shaffer and Harada teach further comprising:

responsive to success of said first negotiation, and if the communication apparatus is self-identified as a candidate or terminally supporting a subsequent codec-bypass negotiation with the originating entity **(see Shaffer figure 6B box 654 is there a result with no transcoding and boxes 656 and 658 determining if there is a codec-bypass/transcoding-free operation and figure 5A box 513 send a third signaling message to inform all stations of coding scheme)**, the control entity being operative to self-identify the communication as a candidate for **(see Shaffer col. 2 lines 29-40 each entity or device capable of converting voice coding between the sender and the receiver identifies its capabilities to the signaling message and col. 7 lines 12 when the signaling capabilities of a station, the station may list its capabilities onto the signaling message)** non-terminally supporting a codec-bypass negotiation with the originating entity **(see Harada figure 7 boxes 11-13 and col. 7 lines 22-44 Determining if same coding type and indication of whether it is the same type or not for coding-bypass communication or tandem communication and it would have been obvious to one of ordinary skill in the art to indicate that same coding type as being positive and different type as being**

negative). The motivation to do so is to reduce the load of IP network and increase the signal quality of speech **(see Harada col. 4 lines 13-34).**

Regarding claim 13, Shaffer and Harada teach negotiation being a first negotiation, wherein the control entity is further operative to: detect success or failure of said first negotiation; and responsive to success of said first negotiation **(see Shaffer figure 6B box 654 is there a result with no transcoding and boxes 656 and 658 determining if there is a codec-bypass/transcoding-free operation and figure 5A box 513 send a third signaling message to inform all stations of coding scheme)**, and if the communication apparatus is self-identified as a candidate **(see Shaffer col. 2 lines 29-40 each entity or device capable of converting voice coding between the sender and the receiver identifies its capabilities to the signaling message and col. 7 lines 12 when the signaling capabilities of a station, the station may list its capabilities onto the signaling message)** or terminally supporting a subsequent codec-bypass negotiation with the originating entity, the control entity being operative to self-identify the communication as a candidate for non-terminally supporting a codec-bypass negotiation with the originating entity **(see Harada figure 7 boxes 11-13 and col. 7 lines 22-44 Determining if same coding type and indication of whether it is the same type or not for coding-bypass communication or tandem communication and it would have been obvious to one of ordinary skill in the art to indicate that same coding type as being positive and different type as being negative)**. The motivation to do so is to reduce the load of IP network and increase the signal quality of speech **(see Harada col. 4 lines 13-34).**

Regarding claim 14, Shaffer and Harada teach the originating entity is an endpoint gateway **(see Shaffer col. 8 line 8 sender's gateway and figure 2 box 202)**.

Regarding claim 15, Shaffer and Harada teach the originating entity is an in-path gateway **(see Shaffer col. 6 lines 23-29)**.

8. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alperovich et al., hereinafter Alperovich, (US6600738) in view of Harada (US7240000).

Regarding clams 18, Alperovich discloses a routing in an IP network based on codec availability and subscriber preference **(see Alperovich col. 1 line 52 to col. 2 line 51)** comprising:

- identifying a target in-path gateway from among the plurality of in-path gateways **(see Alperovich figure 5 and col. 6 lines 22-38 the possible pathways which may include not only the gateway(s) or paths chosen, but also the nodes between the end destination and the chosen gateway(s))**,
- the target in-path gateway being the in-path gateway furthest along the path from the first gateway **(see Alperovich figure 5 and col. 6 lines 22-38 a call to be placed over the core IP network 16 of figure 1 for as long as possible)**

Alperovich discloses all the subject matter of the claimed invention with the exception of:

- which is characterized by codec-bypass connection compatibility with the first gateway;
- establishing a codec-bypass connection between the first gateway and the target in-path gateway.

Harada from the same or similar fields of endeavor teaches the use of:

- when mobile terminals belonging to different mobile communications systems communicate with each other, a communications path is established through gateways which interconnect the two mobile communications systems. Even if the mobile communications systems employ the same speech coding process, a signal passing through a transit network is converted by a general-purpose speech coding process such as 64 kPCM unless the gateways and the transit network are compatible with the speech coding process of the mobile communications systems **(see Harada col. 1 lines 15-25)**;
- determining if same coding type and indication of whether it is the same type or not for coding-bypass communication or tandem communication **(see Harada col. 7 lines 9-44 and figure 7 boxes 11-13);**
- establish the bypass connection from the time a call is made **(see Harade col. 9 lines 17-67).**

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the same coding type and establishing a codec bypass connection as taught by Harada in the routing in an IP network based on codec availability and subscriber preference of Alperovich in order to reduce the load of IP network and increase the signal quality of speech **(see Harada col. 4 lines 13-34).**

Regarding claims 19, Alperovich and Harada teach further comprising: performing a determination of whether the target in-path gateway is involved in a prior codec-bypass connection with the second gateway **(see Harada col. 7 lines 9-44 and**

figure 7 boxes 11-13 and col. 1 lines 15-25); wherein performing the establishing is conditional upon said determination being negative **(see Harada figure 7 boxes 11-13 and col. 7 lines 22-44 Determining if same coding type and indication of whether it is the same type or not for coding-bypass communication or tandem communication and it would have been obvious to one of ordinary skill in the art to indicate that same coding type as being positive and different type as being negative)**. The motivation to do so is to reduce the load of IP network and increase the signal quality of speech **(see Harada col. 4 lines 13-34).**

Regarding claims 20, Alperovich and Harada teaches the target in-path gateway being a first target in-path gateway, the method further comprising:

- responsive to said determination being positive **(see Harada figure 7 boxes 11-13 and col. 7 lines 22-44 Determining if same coding type and indication of whether it is the same type or not for coding-bypass communication or tandem communication and it would have been obvious to one of ordinary skill in the art to indicate that same coding type as being positive and different type as being negative):**
    - identifying a second target in-path gateway from among the plurality of in-path gateways, the second target in-path gateway being the in-path gateway furthest along the path from the first gateway **(see Alperovich col. 6 lines 30 the physical geographical area of the available gateways may be divided into zones, and further into subzones, to allow the PSC server 37 to select a gateway in closest proximity to the end destination)** which is

characterized by codec-bypass connection compatibility with the first gateway and which is not involved in a codec-bypass connection with the second gateway **(see Harada col. 7 lines 9-44 and figure 7 boxes 11-13)**;

- establishing a codec-bypass connection between the first gateway and the second target in-path gateway instead of with the first target in-path gateway **(see Harade col. 9 lines 17-67)**.

9. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alperovich et al., hereinafter Alperovich, (US6600738) in view of Harada (US7240000), and in view of Shaffer et al., hereinafter Shaffer, (US6324409).

Regarding clams 22, Alperovich discloses a routing in an IP network based on codec availability and subscriber preference **(see Alperovich col. 1 line 52 to col. 2 line 51)** comprising:

- identifying a first sub-path between the first gateway and a first target in-path gateway from among the plurality of in-path gateways **(see Alperovich figure 5 and col. 6 lines 22-38 the possible pathways which may include not only the gateway(s) or paths chosen, but also the nodes between the end destination and the chosen gateway(s))**,
- the first target in-path gateway being the in-path gateway furthest along the path from the first gateway **(see Alperovich figure 5 and col. 6 lines 22-38 a call to be placed over the core IP network 16 of figure 1 for as long as possible)**
- identifying a second sub-path between the second gateway and a second target in-path gateway from among the plurality of in-path gateways, the second target in-

path gateway being the in-path gateway furthest along the path from the second gateway **(see Alperovich col. 6 lines 30-35 the physical geographical area of the available gateways may be divided into zones, and further into subzones, to allow the MSC server 37 to select a gateway in closest proximity to the end destination)**

Alperovich discloses all the subject matter of the claimed invention with the exception of:

- which is characterized by codec-bypass connection compatibility with the first gateway;
- which is characterized by codec-bypass connection compatibility with the second gateway;
- determining the lengths of the first and second sub-paths;
- if the first sub-path is longer than the second sub-path, establishing a codec-bypass connection between the first gateway and the first target gateway;
- if the second sub-path is longer than the first sub-path, establishing a codec-bypass connection between the second gateway and the second target gateway.

Harada from the same or similar fields of endeavor teaches the use of:

- when mobile terminals belonging to different mobile communications systems communicate with each other, a communications path is established through gateways which interconnect the two mobile communications systems. Even if the mobile communications systems employ the same speech coding process, a signal passing through a transit network is converted by a general-purpose speech coding

process such as 64 kPCM unless the gateways and the transit network are compatible with the speech coding process of the mobile communications systems **(see Harada col. 1 lines 15-25)**;

- determining if same coding type and indication of whether it is the same type or not for coding-bypass communication or tandem communication **(see Harada col. 7 lines 9-44 and figure 7 boxes 11-13);**
- establish the bypass connection from the time a call is made **(see Harade col. 9 lines 17-67).**

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the same coding type and establishing a codec bypass connection as taught by Harada in the routing in an IP network based on codec availability and subscriber preference of Alperovich in order to reduce the load of IP network and increase the signal quality of speech **(see Harada col. 4 lines 13-34).**

Shaffer from the same or similar fields of endeavor teaches the use of:

- select result with most number of hops with compressed coding **(see Shaffer figure 6B box 662 and col. 9 lines 40-46),** which allows to determine the number of hops between two sub-paths and selecting result with the most number of hops or longer.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the selecting result with the most number of hops with compressed coding **(see Shaffer figure 6B box 662 and col. 9 lines 40-46)** as taught by Shaffter in the modified routing in an IP network based on codec availability and subscriber

preference of Alperovich and Harada in order to optimize telecommunication signal quality **(see Shaffer col. 3 lines 5-15)**.

Regarding claims 23, Alperovich, Harada, and Shaffer teach the further comprising:

- if the first sub-path is not longer than the second sub-path and the second sub-path is not longer than the first sub-path **(see Shaffer col. 9 lines 47-51 if there is another tie with results which allow the call to be made with the most number of hops with compressed coding(step 664 of figure 6B)**:
- determining the priorities of compatibility of the first target gateway with the first gateway and of the second target gateway with the second gateway **(see Shaffer col. 9 lines 49-51 then the tied results are analyzed and the one which is listed higher in the preference list of preferred coding methods is selected (step 666 of figure 6B))** and:
- if the compatibility of the first target gateway with the first gateway has a greater priority than the connection compatibility of the second target gateway with the second gateway, establishing a connection between the first gateway and the first target gateway **(see Shaffer col. 9 lines 49-55 then the tied results are analyzed and the one which is listed higher in the preference list of preferred coding methods is selected (step 666 of figure 6B))**;
- if the connection compatibility of the second target gateway with the second gateway has a greater priority than the connection compatibility of the first target gateway with the first gateway, establishing a connection between the second gateway and the second target gateway **(see Shaffer col. 9 lines 49-55 then the tied results**

are analyzed and the one which is listed higher in the preference list of preferred coding methods is selected (step 666 of figure 6B)).

Response to Arguments

10. Applicant's arguments, see Remarks (page 9), filed 5/13/2010, with respect to 112 2nd Rejection have been fully considered and are persuasive. The 112 2nd Rejection of claims 12-13, 19, and 21 have been withdrawn.

11. Applicant's arguments with respect to claims 18-20 and 22-23 have been considered but are moot in view of the new ground(s) of rejection.

12. Applicant's arguments filed 5/13/2010 have been fully considered but they are not persuasive.

With regard to applicant's remark for claims 1, 16, and 17 (pages 10-14), applicant submits that Shaffer and Harada do not disclose:

"responsive to the assessment of compatibility being positive, self-identifying the gateway as a candidate for terminally supporting a subsequent codec-bypass negotiation with the originating entity;

responsive to the assessment of compatibility being negative, self-identifying the gateway as a candidate for non-terminally Supporting a subsequent codec-bypass negotiation with the originating entity."

However, Shaffer discloses responsive to the assessment **(see Shaffer col. 7 lines 1-14 the signaling message then collects at least one telecommunication signal coding or compression capability of at least one intermediary station and figure 4 step 402),** and self-identify the communication apparatus as a candidate **(see Shaffer col. 2 lines 29-40 each entity or device capable of converting voice coding between the sender and the receiver identifies its capabilities to the signaling**

message and col. 7 lines 12 when the signaling capabilities of a station, the station may list its capabilities onto the signaling message). Harada discloses determining if same coding type and indication of whether it is the same type or not for coding-bypass communication or tandem communication **(see Harada figure 7 boxes 11-13 and col. 7 lines 22-44),** and it would have been obvious to one of ordinary skill in the art to indicate that same coding type as being positive and different type as being negative. The motivation to combine is to reduce the load of IP network and increase the signal quality of speech **(see Harada col. 4 lines 13-34).**

With regard to applicant's remark for claims 1, 16, and 17 (page 12), applicant submits that Harada concerned with communication between two (mobile or IP) switching centers, and Harada is not concerned with in-path gateways. However, Harada discloses in col. 1 lines 17-25 a communication path is established through gateways which interconnect the two mobile communications systems, and therefore Harada is concerned with in-path gateways.

Examiner's Note: examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the figures may apply as specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

With regard to applicant's remark for claims 1, 16, and 17 (page 12), applicant submits that Harada does not consider whether the switching centers can terminally or non-terminally support a codec-bypass negotiation, rather Harada considers whether the mobile terminals are using the same codec and decides whether or not to directly pass their signals to one another on this basis.

However, Harada discloses determining whether it supports the same coding type, which leads to codec bypass in figure 7 box 13, otherwise tandem connection in figure 7 box 12 which corresponds to terminally or non-terminally support a codec-bypass connection. Although the claims are interpreted in light of specification, limitations from the specification are not read into the claims. See *In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993)*.

With regard to applicant's remark for claims 1, 16, and 17 (page 12), applicant submits that Harada does not disclose responsive to such an assessment of compatibility between the codec information regarding the originating entity and the codec information regarding said communication apparatus being positive or negative. However, Shaffer in figure 4 boxes 406 and 408 determining an end-to-end coding scheme and in col. 7 lines 1-14 the signaling message then collects at least one telecommunication signal coding or compression capability of at least one intermediary station and figure 4 step 402, therefore Shaffer discloses collects at least one telecommunication signal coding or compression capability. Harada indicates whether it supports the same coding type, which leads to codec bypass in figure 7 box 13, otherwise tandem connection in figure 7 box 12 which corresponds to terminally or non-

terminally support a codec-bypass connection. The motivation to combine is to reduce the load of IP network and increase the signal quality of speech **(see Harada col. 4 lines 13-34).** Therefore Shaffer and Harada teach all the limitations claimed and rejection respectfully remains.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Huh et al. (US2002/0027930) and Koistinen (US7136375).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WUTCHUNG CHU whose telephone number is (571) 272-4064. The examiner can normally be reached on 9am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jefferey F. Harold can be reached on (571) 272-7519. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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